and then dried in a water-oven, to determine the water. The other was macerated in cold water until it became colourless, then moderately dried and digested with ether and alcohol to remove fat, and finally dried completely and weighed as fibrin. From the respective weights of the fibrin and the dry clot that of the corpuscles was calculated. The following were the results observed in seven different individuals affected with phthisis in different stages of advancement:—

		Red corpuscles.	Fibrin.
First stage, before the use of cod-liver oil	Female	129·26	4·52
	Male	116·53	13·57
First stage, after the use of cod-liver oil	Female	136·47	5·00
	Male	141·53	4·70
Third stage, after the use of cod-liver oil	Male	138·74	2·23
Third stage, after the use of cocoa-nut oil.....	Male	139·95	2·31
	Male	144·94	4·61

II. "On a property of Numbers." By the Rev. James Booth, LL.D., F.R.S. &c. Received April 6, 1854.

I know not whether the following property of numbers has been made public.

A number of six places, consisting of a repetition of a period of any three figures, is divisible by the prime numbers 7, 11 and 13. Thus 376376, 459459, 301301 are so divisible.

A number N of six places may be thus written:—

$$N=100.000\,a+10.000\,b+1000\,c+100\,d+10\,e+f,$$

which, when divided by 7, will give a quotient q and a remainder $5a+4b+6c+2d+3e+f$.

Now if $d=a$, $e=b$, $f=c$, this remainder may be written $7(a+b+c)$, which is divisible by 7, whatever be the values of a, b, c.

In like manner if a number of six places be divided by 13, the remainder will be

$4a+3b+12c+9d+10e+f$; and, as before, if $d=a$, $e=b$, $f=c$,

the remainder may be written $13(a+b+c)$, which is divisible by 13, whatever be the value of a, b and c.

In the same way it may be shown that a number of this kind is divisible by 11.

When the first figure of the period is 0, and the second any whatever i and j, the number is $0ij0ij=ij0ij$; or any number of five places, the first two and the last two being the same, while the middle place is 0, is divisible by 7, 11 and 13. Thus 34034, 14014 are so divisible.

When the first two places are 0, the number may be written $00i00i=i00i$, or any number of four places, the first and last figures being the same, while the two middle places are 0, is divisible by 7, 11 and 13. Thus 5005, 8008 are so divisible.

Like properties may be found for 17, 19, 23, but the periods are longer. The prime divisor being $2n+1$, it is manifest the number of places in the period cannot exceed, however it may fall short of n.

Thus when the divisor is 17, the number of places in the period is eight.

III. "On Fessel's Gyroscope." By C. Wheatstone, Esq., F.R.S. Received April 6, 1854.

Since the announcement of M. Foucault's beautiful experiment which has afforded us a new mechanical proof of the rotation of the earth on its axis, the phenomena of rotary motion have received renewed attention, and many ingenious instruments have been contrived to exhibit and to explain them. One of the most instructive of these is the Gyroscope invented by M. Fessel of Cologne, described in its earlier form in Poggendorff's Annalen for September 1853, and which, with some improvements by Prof. Plücker and some further modifications suggested by myself, I take the present opportunity of bringing before the Royal Society.

It is thus constructed: a beam is capable of moving freely round a horizontal axis which is itself moveable round a vertical axis, so that the beam may move in any direction round a fixed point; at one end of the beam is fixed a horizontal ring which carries a heavy